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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,502	08/07/2003	Tac Wook Kim	HI-0139	1413
34610	7590	08/21/2006	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			NGUYEN, TU X	
			ART UNIT	PAPER NUMBER
			2618	

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/635,502	Applicant(s) KIM, TAC WOOK	
	Examiner Tu X. Nguyen	Art Unit 2618	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 and 14-21 is/are pending in the application.  
     4a) Of the above claim(s) 13 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-15 is/are allowed.
- 6) ☒ Claim(s) 1, 16, 17 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1 and 16-21 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 1, 16-17 and 19-21, are rejected under 35 U.S.C. 102(e) as being anticipated by Applicant admitted prior art.

Regarding claim 1, the Applicant admitted prior art discloses a linear power amplifier (LPA) shelf for a mobile communication base station, wherein the LPA shelf controls a path of at least one sector signal according to LPA types determined by LPA installation and a number of frequency assignments (FAs) (see background of related Art, par.5), provides the at least one sector signal to corresponding LPAs via the controlled path (see background of related Art, par.12), and amplifies the at least one sector signal to a predetermined level to output the at least one amplified sector signal (see background of related Art, par.15).

Regarding claim 16, the Applicant admitted prior art discloses a method for switching LPA type of a mobile communication base station, the method comprising the steps of: determining a to-be-changed LPA type based on a current LPA type and the number of FAs

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according to open collector signals (switch 214 and 210 are considered transistor collectors for switching on and off paths between LPAs) generated from each LPA (see background of related Art, par.5); and switching the LPA type according to the determined LPA type (see background of related Art, par.6-9).

Regarding claims 17 and 19, the Applicant admitted prior art discloses if the current LPA type is a redundancy type and simultaneously 3 or more FAs are required so that the redundancy type is to be switched to a 2 way combiner type (see background of related Art, par.7), simultaneously connecting first and second paths of a signal dividing means; simultaneously connecting a second path of a first LPA type conversion means and a second path of a second LPA type conversion means, respectively; and simultaneously connecting first and second paths of a signal combining means (see background of related Art, par.8-11).

Regarding claim 20, the Applicant admitted prior art discloses if the current type is a redundancy type and simultaneously the open collector signals are not received from a redundancy LPA so that the redundancy type is switched to a 1:1 type (see background of related Art, par.5), connecting a first path of a signal dividing means and disconnecting a second path of a signal dividing means; connecting a second path of a first LPA type conversion means and a second path of a second LPA type conversion means, respectively; and connecting a first path of a signal combining means and disconnecting a second path of a signal combining means (see background of related Art, par.8-11).

Regarding claim 21, the Applicant admitted prior art discloses the open collector signals are generated whenever each LPA is installed (see background of related Art, par.5).

***Allowable Subject Matter***

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4. Claims 2-12 and 14-15, are allowed.
5. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter:

Regarding independent claims 2 and 12, the prior arts fail to teach "a phase adjusting means connected to the first and second signal dividers, that adjusts a phase of a second sector signal so as to correspond to the first sector signal, the second sector signal being provided via a second path of the set paths", as cited in the claim.

Regarding dependent claim 18, the prior arts fail to teach "if the redundancy type is switched to the 2 way combiner type, delaying a phase of a second sector signal transmitted to the second path by an amount of delayed phase caused when a first sector signal passes through first and second switch means", as cited in the claim.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Nguyen whose telephone number is 571-272-7883.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

August 9, 2006

